In the Claims:

1. (original) A photodetector arrangement (1) for stray light compensation with a photodetector unit (2) for detecting and determining at least two measuring signals (S_1 and S_2) and with a differential unit (6) for subtraction of the measuring signals (S_1 and S_2), wherein between the photodetector unit (2) and the differential unit (6) a compensation unit (4) is provided for compensating the constant components (S_{GL}, S_{mGL}) forming the basis of the respective measuring signal (S_1 and S_2).

2. (original) A photodetector arrangement according to claim 1, wherein the compensation unit (4) comprises a number of differential modules (10) which corresponds to the number of measuring signals (S_1 and S_2).

Claims 3 to 8 (canceled).

9. (original) A method for stray light compensation of measuring signals (S_1, S_2) detected by means of a photodetector unit (2), wherein a constant component (S_{GL}, S_{mGL}) forming the basis of the respective measuring signal (S_1, S_2) is compensated before subtraction of the measuring signals (S_1, S_2).

1 **10.** (original) A method according to claim 9, wherein for the
2 measuring signals (S_1, S_2) a constant component (S_{GL}, S_{mGL}) is
3 determined, which commonly represents these signals.

Claims **11 to 13** (canceled).

1 **14.** (new) A photodetector arrangement according to claim 1,
2 wherein the compensation unit (4) comprises an amplifier
3 unit (8).

1 **15.** (new) A photodetector arrangement according to claim 14,
2 wherein an amplifier unit (8) common for all measuring
3 signals (S_1 and S_2) is provided.

1 **16.** (new) A photodetector arrangement according to claim 14,
2 wherein a number of amplifier units (8) is provided, which
3 corresponds to the number of the detected measuring signals
4 (S_1 and S_2).

1 **17.** (new) A photodetector arrangement according to claim 1,
2 wherein the compensation unit (4) comprises a limit value
3 module (12).

1 **18.** (new) A photodetector arrangement according to claim 1,
2 wherein photodetector unit (2) is embodied as a photonic
3 mixer detector (14).

1 **19.** (new) A photodetector arrangement according to claim 1,
2   wherein the photodetector unit (2) is embodied as an active
        pixel sensor.

1 **20.** (new) A method according to claim 9, wherein for the
2   constant component (S_{GL}, S_{mGL}) at least one constant factor
3   is determined.

1 **21.** (new) A method according to claim 9, wherein the constant
2   component (S_{GL}, S_{mGL}) is determined as a function of one of
3   the measuring signals (S_1, S_2).

1 **22.** (new) A method according to claim 9, wherein the constant
2   component (S_{GL}, S_{mGL}) is determined at least by means of a
3   mean maximum modulation contrast.

[REMARKS FOLLOW ON NEXT PAGE]